

the specification of which

DECLARATION AND POWER OF ATTORNEY

As a below-named inventor, I hereby declare that:

My residence, post office address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

MESENCHYMAL STEM CELLS AS A VEHICLE FOR ION CHANNEL TRANSFER

(check one)	i	s attached hereto.		
	<u>X</u> v	was filed on <u>January</u>	15, 2004	as
	Applica	tion Serial No.: 10/75	57,827	
	and was	amended on	(if applicable)	·
			anderstand the contents of ded by any amendment re	
•	e to be	material to patentabi	.S. Patent and Trademark ility as defined in Title	
or Section 36 365(a) of any the United Sta or inventor's	5(b) of an PCT Intented test, listed certificate	ny foreign application rnational Application I below. I have also ic	r Title 35, United States Costs) for patent or inventor which designated at least dentified below any foreignal Application having a first claimed:	's certificate or Section one country other than an application for paten
Prior Foreign Number	Applicat	ion(s) <u>Country</u>	Filing Date	Priority Claimed Yes No

I hereby claim the benefit under Title 35. United States Code, Section 119(e) of any United States provisional application(s) listed below:

Provisional Application No. Filing Date Status

60/440,265 January 15, 2004 Pending as of January 15, 2004

I hereby claim the benefit under title 35, United States Code, Section 120 of any United States Application(s) or Section 365(c) of any PCT International Application(s) designating the United States listed below. Insofar as this application discloses and claims subject matter in addition to that disclosed in any such prior Application in the manner provided by the first paragraph of Title 35. United States Code, Section 112, I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations Section 1.56 which became available between the filing date(s) of such prior Application(s) and the national or PCT international filing date of this application:

Application Serial No.	Filing Date	•	<u>Status</u>	
	•		· ·	

And I hereby appoint

John P. White (Reg. No. 28,768; Christopher C. Dunham (Reg. No. 22,031); Norman H. Zivin (Reg. No. 25, 385); Jay H. Maioli (Reg. No. 27,213); William E. Pelton (Reg. No. 25,702); Robert D. Katz (Reg. No. 30,141); Peter J. Phillips (Reg. No. 29,691); Wendy E. Miller (Reg. No. 35,615); Richard S. Milner (Reg. No. 33,970); Robert T. Maldonado (Reg. No. 38,232); Paul Teng (Reg. No. 40,837); Richard F. Jaworski (Reg. No. 33,515); Alan J. Morrison (Reg. No. 37,399); Pedro C. Fernandez (Reg. No. 41,741); and Gary J. Gershik (Reg. No. 39,992)

and each of them, all c/o Cooper & Dunham LLP of 1185 Avenue of the Americas, New York, New York 10036 (Tel. 212 278-0400), my attorneys, each with full power of substitution and revocation, to prosecute this application, to make alterations and amendments therein, to receive the patent, to transact all business in the Patent and Trademark Office connected therewith and to file any International Applications which are based thereon under the provisions of the Patent Cooperation Treaty.

Please address all communications, and direct all telephone calls, regarding this application to

John P. White Cooper & Dunham LLP 1185 Avenue of the Americas New York, N.Y. 10036 Tel. (212) 278-0400 Reg. No. 28,678

statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon. Full name of sole or first joint inventor Michael R. Rosen 6-1-04 Inventor's signature: Citizenship: U.S.A. Date of signature Residence 25 East 86th Street, Apt. 14C, New York, New York 10028 Post Office Address same as above Full name of sole or first joint inventor Richard B. Robinson Inventor's signature! Kulkaud! Citizenship: <u>U.S.A.</u> Date of signature ___ Residence 67 Roosevelt Street, Cresskill, New Jersey 07626 Post Office Address <u>same as above</u> Full name of sole or first joint inventor Ira S. Cohen Inventor's signature _____ Citizenship: U.S.A. Date of signature Residence 23 Hawks Nest Road, Stony Brook, New York 11790 Post Office Address <u>same as above</u> Full name of sole or first joint inventor Peter R. Brink Inventor's signature Citizenship: U.S.A. Date of signature Residence 101 Dyke Road, Setauket, New York 11733

Post Office Address same as above

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these



DECLARATION AND POWER OF ATTORNEY

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MESENCHYMAL STEM CELLS AS A VEHICLE FOR ION CHANNEL TRANSFER

(check one)	ion of v	wnicn			
(check one)		is attached hereto.			
	<u>X</u>	was filed on Januar	ry 15, 2004		_ as
	Appli	cation Serial No.: 10)/757,827		_
	and w	as amended on	(if applicable)		<u> </u>
•			d understand the contents nended by any amendment i		itified
-	e to b	e material to patent	e U.S. Patent and Trademan tability as defined in Title		
or Section 36 365(a) of any the United St or inventor's	55(b) of PCT In parties, list certification.	any foreign applicat nternational Applicat ted below. I have als	nder Title 35, United States (ion(s) for patent or invento ion which designated at least o identified below any foreitional Application having a ity is claimed:	r's certificate or Se st one country other gn application for p	ection r than patent
Prior Foreign Number	a Appli	cation(s) <u>Country</u>	Filing Date	Priority Clair <u>Yes</u>	med <u>No</u>
		· · · · · · · · · · · · · · · · · · ·			

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Provisional Application No. Filing Date Status

60/440,265 January 15, 2004 Pending as of January 15, 2004

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Application Serial No.	Filing Date	<u>Status</u>

And I hereby appoint

John P. White (Reg. No. 28,768; Christopher C. Dunham (Reg. No. 22,031); Norman H. Zivin (Reg. No. 25, 385); Jay H. Maioli (Reg. No. 27,213); William E. Pelton (Reg. No. 25,702); Robert D. Katz (Reg. No. 30,141); Peter J. Phillips (Reg. No. 29,691); Wendy E. Miller (Reg. No. 35,615); Richard S. Milner (Reg. No. 33,970); Robert T. Maldonado (Reg. No. 38,232); Paul Teng (Reg. No. 40,837); Richard F. Jaworski (Reg. No. 33,515); Alan J. Morrison (Reg. No. 37,399); Pedro C. Fernandez (Reg. No. 41,741); and Gary J. Gershik (Reg. No. 39,992)

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Cooper & Dunham LLP
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New York, N.Y. 10036
Tel. (212) 278-0400

Reg. No. 28,678

I hereby declare that all statements made herein of my own knowledge are true and that all

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Full name of sole or first joint inventor Michael R. Rosen
Inventor's signature:
Citizenship: U.S.A.
Date of signature
Residence 25 East 86th Street, Apt. 14C, New York, New York 10028
Post Office Address <u>same as above</u>
Full name of sole or
first joint inventor Richard B. Robinson
Inventor's signature:
Citizenship: U.S.A.
Date of signature
Residence 67 Roosevelt Street, Cresskill, New Jersey 07626
Post Office Address <u>same as above</u>
Full name of sole or
first joint inventor <u>Ira S. Cohen</u>
0 1 0 0
Inventor's signature <u>Ira J. Cohem</u>
Citizenship: U.S.A.
Date of signature 6/07/04
Residence 23 Hawks Nest Road, Stony Brook, New York 11790
Post Office Address same as above
Full name of sole or
first joint inventor Peter R. Brink
This joint inventor reter R. Brink
Inventor's signature AR OUR INS
Citizenship: U.S.A.
Date of signature 6 07 00
Residence 101 Dyke Road, Setauket, New York 11733
Post Office Address same as above

Attornov's Docket No. 68262 A/IPW/PIP
Attorney's Docket No. 68262-A/JPW/PJP Applicant or Patentee: Peter Brink et al.
Serial or Patent No.: 10/757,827
Filed or Issued: January 15, 2004 File of Invention or Patent: MESENCHYMAL STEM CELLS AS A VEHICLE FOR ION CHANNEL TRANSFER
VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS UNDER 37 C.F.R. §1.9(f) AND §1.27(d) - NONPROFIT ORGANIZATION
below:
Name of Organization: <u>THE TRUSTEES OF COLUMBIA UNIVERSITY IN THE CITY OF NEW YORK</u>
Address of Organization: <u>110 Low Memorial Library, West 116th & Broadway</u> <u>New York, New York 10027</u>
TYPE OF ORGANIZATION:
X UNIVERSITY OR OTHER INSTITUTION OF HIGHER EDUCATION TAX EXEMPT UNDER INTERNAL REVENUE SERVICE CODE 26 U S.C. §§501(a) and 501(c)(3) NONPROFIT SCIENTIFIC OR EDUCATIONAL UNDER STATUTE OF STATE OF THE UNITED STATES OF AMERICA NAME OF STATE: CITATION OF STATUTE:
WOULD QUALIFY AS TAX EXEMPT UNDER INTERNAL REVENUE SERVICE CODE 26 U.S.C. §§501(a) and 501(c)(3) IF LOCATED IN THE UNITED STATES OF AMERICA — WOULD QUALIFY AS NONPROFIT SCIENTIFIC OR EDUCATIONAL UNDER STATUTE OF STATE OF THE UNITED STATES OF AMERICA IF LOCATED IN THE UNITED STATES OF AMERICA NAME OF STATE: CITATION OF STATUTE:
I hereby declare that the nonprofit organization identified above qualifies as a nonprofit organization as defined in 37 C.F.R. 1. 9(e)b for purposes of paying reduced fees under 35 U.S.C. §§41(a) and 41(b), with regard to the invention entitled
MESENCHYMAL STEM CELLS AS A VEHICLE FOR ION CHANNEL TRANSFER
by inventor(s) <u>Peter Brink, Ira S. Cohen, Richard B. Robinson and Michael R. Rosen</u> described in:
the specification filed herewith \overline{X} application S.N. $\underline{10/757,827}$ filed January 15, 2004 patent no. issued
I hereby declare that rights under contract or law have been conveyed to and remain with the nonprofit organization with regard to the above identified invention.
If the rights held by the nonprofit organization are not exclusive, each individual, concern or organization having rights to the invention is listed below and no rights to the invention are held by any person, other than the inventor, who could not qualify as a small business concern under 37 C.F.R. §1.9(d)b or as a nonprofit organization under 37 C.F.R. §1.9(e)b. Name: Address:
Individual Small Business Concern <u>X</u> Nonprofit Organization
^a NOTE: Separate verified statements are required for each named person, concern, or organization having rights to the invention averring to their status as small entities. 37 C.F.R. §1.27.
^b See reverse side.

Small Entity/Nonprofit Page -2-

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. 37 C.F.R. §1.28(b)*.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. §1001, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

Michael J. Cleare, Ph. D.	
Executive Director	
Columbia Innovation Enterprise	
Columbia University, Engineering Terrace - Suite 363	
Amsterdam & 120 th Street	
New York, NY \$\psi 027	
AMA	
_ mis lau	
6/3/2004	

^{*} See reverse side.

٠.	Attornavia Dagkat No. 69262 A/IDW/DID
	Attorney's Docket No. 68262-A/JPW/PJP Applicant or Patentee: Peter Brink et al.
	Serial or Patent No.: 10/757,827
	Filed or Issued: January 15, 2004
101	pile of Invention or Patent: MESENCHYMAL STEM CELLS AS A VEHICLE FOR ION CHANNEL TRANSFER
13	VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS UNDER 37 C.F.R. §1.9(f) AND §1.27(d) - NONPROFIT ORGANIZATION
10.0	AND §1.2/(a) - NONPROFIT ORGANIZATION Thereby declare that I am an official empowered to act on behalf of the nonprofit organization identified below:
	Name of Organization: <u>RESEARCH FOUNDATION OF STATE UNIVERSITY OF NEW YORK</u> Address of Organization: <u>P.O. BOX 9</u> Albany, New York 12201-0009
	TYPE OF ORGANIZATION:
	UNIVERSITY OR OTHER INSTITUTION OF HIGHER EDUCATION TAX EXEMPT UNDER INTERNAL REVENUE SERVICE CODE 26 U.S.C. §§501(a) and 501(c)(3) NONPROFIT SCIENTIFIC OR EDUCATIONAL UNDER STATUTE OF STATE OF THE UNITED STATES OF AMERICA NAME OF STATE: CITATION OF STATUTE: WOULD QUALIFY AS TAX EXEMPT UNDER INTERNAL REVENUE SERVICE CODE 26 U.S.C.
	§\$501(a) and 501(c)(3) IF LOCATED IN THE UNITED STATES OF AMERICA WOULD QUALIFY AS NONPROFIT SCIENTIFIC OR EDUCATIONAL UNDER STATUTE OF STATE OF THE UNITED STATES OF AMERICA IF LOCATED IN THE UNITED STATES OF AMERICA NAME OF STATE: CITATION OF STATUTE:
	I hereby declare that the nonprofit organization identified above qualifies as a nonprofit organization as defined in 37 C.F.R. 1.9(e)b for purposes of paying reduced fees under 35 U.S.C. §§41(a) and 41(b), with regard to the invention entitled
	MESENCHYMAL STEM CELLS AS A VEHICLE FOR ION CHANNEL TRANSFER
	by inventor(s) <u>Peter Brink, Ira S. Cohen, Richard B. Robinson and Michael R. Rosen</u> described in:
	the specification filed herewith X application S.N. $10/757,827$ filed January 15, 2004 patent no. issued
	I hereby declare that rights under contract or law have been conveyed to and remain with the nonprofit organization with regard to the above identified invention.
	If the rights held by the nonprofit organization are not exclusive, each individual, concern or organization having rights to the invention is listed below and no rights to the invention are held by any person, other than the inventor, who could not qualify as a small business concern under 37 C.F.R. §1.9(d)b or as a nonprofit organization under 37 C.F.R. §1.9(e)b. Name: Address:
	Individual Small Business Concern Nonprofit Organization
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	^b See reverse side

Small Entity/Nonprofit Page -2-

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. §1001, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

Name of Person Signing:	ERIKA GEIMONEN
Title In Organization: Address:	RESEARCH FOUNDATION OF STATE UNIVERSITY OF NEW YORK
marcos.	Albany, New York 12201-0009
Signature:	1/\subset \lambda_k
Date of Signature:	June 4, 2004

^{*} See reverse side.